

On the interaction of extraction and argument marking in Asante Twi

Johannes Hein & Doreen Georgi

johannes.hein@uni-potsdam.de

doreen.georgi@uni-potsdam.de

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Introduction

Topic

- ❖ study of the distribution of resumptive pronouns (RPs) vs. gaps in Asante Twi focus/wh-fronting
- ❖ the pattern is more complex than previously described
- ❖ asymmetries
 - ▶ between types of extractees (wrt. category)
 - ▶ between subject and object extraction
 - ▶ in island-sensitivity
- ❖ Asante Twi (Kwa, Ghana), novel data from elicitations with 2 native speakers

Goals

We argue for the following:

- ❖ One and the same type of extraction may result in both a gap or an RP (*pace* claims that extraction of NP-arguments always leaves an RP).
- ❖ The choice between gap/RP is not determined by the $[\pm N]$ feature or the GF of the extractee, but by the structure of the extracted XP (presence/absence of a D-shell).
- ❖ This supports the partial deletion account of RPs in movement chains under the copy theory of movement.
- ❖ AT exhibits a preference of an RP over a gap when possible – a pattern that is in conflict with economy constraints such as Avoid Pronoun.

Overview

1. Introduction
2. Previous work
3. New observation
4. Analysis
5. Extension: Subject extraction
6. Open questions
7. Conclusion

Previous work

Saah (1994), Korsah (2017), Korsah and Murphy (2019)

- ❖ Focus fronting of nominal arguments: always leaves behind a RP – with a surface split based on animacy of the extractee:
 - ▶ animates: always leave a RP, (1-a)
 - ▶ inanimates: often seem to leave a gap, (1-b)
 - ▶ but the ‘gap’ with inanimates is in fact an unpronounced RP; evidence: RP is forced to be overt when followed e.g. by a clause-final adverb, (2)

- (1) a. Hwáń₁/Kofĩ₁ na Yaw pé {*—₁ / no₁}?
 who/Kofi FOC Yaw like 3SG.O
 ‘Who does Yaw like? / It’s Kofi who Yaw likes.’
- b. Déén₁/[krataá nó]₁ na Yaw pé {—₁ / *no₁}?
 what/book DEF FOC Yaw like 3SG.O
 ‘What does Yaw like? / It’s the book that Yaw likes.’ (KM 2019)
- (2) [Aduane nó]₁ na Kofĩ pé {*—₁ / nó₁} anɔ́pá.
 food the FOC Kofi like 3SG.O morning
 ‘It’s the food that Kofi likes in the morning.’ (KM 2019)

Saah (1994), Korsah (2017), Korsah and Murphy (2019)

- ❖ Focus fronting of non-nominal XPs (VPs, PPs) leaves true gaps (even when followed by a clause-final adverb)

- (3) a. [PP Akonwá nó mú] na Kofi dá {——PP / *hɔ} anɔpá.
 chair the in FOC Kofi lie there morning
 ‘Kofi is lying IN THE CHAIR in the morning.’ (KM 2019)
- b. [VP Dán sí]-é na Ámá káa sé Kofi á-yó {——VP /
 house build-NMLZ FOC Ama say.PST that Kofi PFV-do
 *nó} anɔpá.
 3SG.O morning
 ‘Ama said that Kofi BUILT A HOUSE in the morning (not bought a car).’

- ❖ both the gap and the (overt/null) RP cases involve movement, evidence (KM 2019): reconstruction effects, tonal reflex of movement

Saah (1994), Korsah (2017), Korsah and Murphy (2019)

- ❖ movement of nominal XPs (overt or null RP): is not island-sensitive
→ island repaired by resumption

- (4) a. Hwáń₁ na wo-ním [DP onipa ko [CP áa ɔ-bóɔ nó₁
 who FOC 2SG-know person the REL 3SG.S-hit.PST 3SG.O
 nó]]?
 CD
 ‘Who do you know the person who hit (him)?’ (KM 2019)
- b. Déén₁ na wo-ním [DP onipa ko [CP áa ɔ-tóóé —₁
 what FOC 2SG-know person the REL 3SG.S-buy.PST
 nó]]?
 CD
 ‘What do you know the person who bought (it)?’ (KM 2019)

Saah (1994), Korsah (2017), Korsah and Murphy (2019)

❖ movement of non-nominal XPs (true gap): is island-sensitive

- (5) a. *_{[PP Akonwá nó mú] na Ama níím [DP neá níti [CP áa}
 chair the in FOC Ama know thing because.of REL
 Kofi dá —_{PP}]].
 Kofi lie
 ‘Ama knows the reason why Kofi lies IN THE CHAIR.’ (KM 2019)
- b. *_{[VP Dán sí]-é na mé-n-tée [DP atétésém biará [CP}
 house build-NMLZ FOC 1SG-NEG-hear.PST rumour.PL any
 sé Kofi á-yó —_{VP}]].
 that Kofi PFV-do
 ‘I didn’t hear any rumours that Kofi has BUILT A HOUSE.’ (Hein 2017)

Previous work: summary

- ❖ asymmetry between nominal (RP) vs. non-nominal extractees (gap)
- ❖ nominal extractees: surface asymmetry between RPs (animates) and apparent gaps (inanimates)
- ❖ correlation: RPs (overt or silent) repair islands

(6) Interaction of category $[\pm N]$, gap/RP and islandhood:

summary:	NP	VP/PP
true gap	no	yes
island-sensitive	no	yes

New observation

Observation

- ❖ the RP/gap split is not determined by the $[\pm N]$ -status of the extractee
- ❖ even some nominal extractees leave true gaps under ex-situ focus: parts of idioms, predicate Ns, kind-expressions

- (7) a. Ne-nán₁ na ɔ-gyáε {—₁ / *nó₁} [PP wɔ dán nó mú].
 his-leg FOC 3SG.S-leave.PST 3SG.O LOC room the inside
 Id.: 'It's defecating that he did in the room.'
 Lit.: 'It's his leg that he left in the room.' (KM 2019)
- b. Tíkyani₁ na Kofi bé-yé {—₁ / *nó₁} afe yí.
 teacher FOC Kofi FUT-be 3SG.O year this
 'It is a teacher that Kofi will become this year.'
- c. Nípa₁ na Kofi súró {—₁ / *nó₁} páa.
 person FOC Kofi fear 3SG.O really
 'It's people that Kofi really fears.'

Observation

Interestingly, even though these Ns leave true gaps (like VPs, PPs), the dependencies are not island-sensitive (unlike VPs, PPs)!

- (8) a. Ne-nán₁ na m-á-té [DP atésém bí [CP sé ɔ-gyáε
his-leg FOC 1SG.S-PFV-hear rumour a that 3SG.S-leave.PST
{____₁ / *nó₁} wɔ dán nó mú]].
3SG.O LOC room the inside

Id.: 'It's defecating that I have heard a rumour that he did in the room.'

- b. Tíkya₁ na m-á-té [DP atésém nó [CP sé Kofi bé-yé {____₁
teacher FOC 1SG-PERF-hear rumour the that Kofi FUT-be
/ *nó₁} afe yí]].
3SG.O year this

'It is a teacher that I have heard the rumour that Kofi will become this year.'

- c. Nípa₁ na wo-té-e [DP atésém nó [CP sé Kofi súró {____₁ /
person FOC 2SG.S-hear-PST rumour the that Kofi fear
*nó₁} páa]].
3SG.O really

'It's people that I have heard the rumour that Kofi really fears.' (not animals)

Observation

► KM's (2019) idea that it is the presence of an RP that repairs islands breaks down: gap dependencies can also be island-insensitive

(9) Updated table:

summary:	NP _{KM}	NP _{novel}	VP/PP
true gap	no	yes	yes
island-sensitive	no	no	yes

Analysis

Source of the split between Ns

- ❖ What's the difference between the nominals that leave an RP and those that leave a gap under focus movement?
- ❖ **Proposal:** the presence of a D-layer; those extractees that have a D-layer leave behind RPs because RPs spell-out D-heads; if a D-shell is absent, we get a gap
- ❖ background: cross-linguistically, RPs are (personal) pronouns (Asudeh 2011, 2012; McCloskey 2017); pronouns are of category D (Abney 1987)

Source of the split between Ns

Gap-leaving elements: absence of D-head

- ❖ VP, PP: obvious
- ❖ predicate N: Ns are predicates of type $\langle e, t \rangle$, type $\langle e \rangle$ achieved by combination with D (cf. Longobardi 1994, Partee 1987)
- ❖ kind-expression: structurally smaller than Ns of other types (Chierchia 1998)
- ❖ idiomatic N: potential problem, but idioms are always special...

RP-leaving nominals: presence of D-head

- ❖ proper names: are of category D (Longobardi 1994)
- ❖ definite Ns with an overt D – obvious
- ❖ specific Ns without an overt D: May usually occur with overt D optionally \rightarrow silent D-head.

Supporting evidence

- ❖ Elements without a D-layer are also unable to be taken up by a discourse anaphoric pronoun.

(10) a. ɔ-gya-a ne-nán wɔ dán nó mú.
 3SG.S-leave-PST 3SG.POSS-leg LOC room DEF inside
 ‘He defecated (lit.: left his leg) in the room.’

b. *Na ε-a-bu.
 PST 3.INAN.S-PFV-break
 ‘It was broken.’

(11) a. Kofi kan křataá.
 Kofi read paper
 ‘Kofi reads (a) newspaper.’

b. ?ε-yε aniká.
 3.INAN.S-be interesting
 ‘It is interesting.’

(12) a. Kofi ye tíkya.
 Kofi be teacher
 ‘Kofi is a teacher.’

b. ?ε-yε adwúma pa.
 3.INAN.S-be work good
 It is a good job.

An alternative: Referentiality

A different approach:

- ❖ Referential nouns leave an RP, non-referential ones leave a gap
- ❖ Non-referential nouns (Chen 2009):
 - ▶ idiomatic
 - ▶ generics/kinds
 - ▶ non-specific
 - ▶ non-D-linked
 - ▶ inherently non-referential quantifiers (every, no)
 - ▶ non-ostensive use

An alternative: Referentiality

Problem:

- ❖ How can the semantics influence the syntactic behaviour of an argument? Only possible if semantics encoded syntactically (e.g. presence of a head → D-shell)
- ❖ no effect of D-linking, quantifiers (every), non-specific indefinites

- (13) a. Hwáń na Ámá hú-u *(nó) nnera?
 who FOC Ama see-PST 3SG.O yesterday
 'Who did Ama see yesterday?'
 b. Papa bɛn na Ámá hú-u *(nó) nnera?
 man which FOC Ama see-PST 3SG.O yesterday
 'Which man did Ama see yesterday?'
 c. ɔbáá bíará na Kofí hú-u *(nó) nnera.
 woman every FOC Kofi see-PST 3SG.O yesterday
 'It is every woman that Kofi saw yesterday.'
 d. ɔbáá (bí) na mé-hú-u *(nó) nnera; nyɛ barimá.
 woman (a) FOC 1SG.S-see-PST 3SG.O yesterday not man
 'It's (some/a) woman that I saw yesterday, not (some/a) man.'

Implementation

We propose a partial deletion account of RPs under the copy theory of movement (cf. van Urk 2018).

- ❖ highest copy is pronounced, lower copies need to be reduced
- ❖ either this copy is entirely deleted
 $[_{CP} [_{DP} D NP] \dots [\textcolor{red}{\cancel{[_{DP} \cancel{D} \cancel{NP}]} }]$
- ❖ or it is deleted only partially, viz., the projection of the lexical head is deleted: NP, VP, PP
 $[_{CP} [_{DP} D NP] \dots [_{DP} D \textcolor{red}{\cancel{NP}}]]$

Implementation

Asante Twi

- ❖ observation: partial deletion applies obligatorily in AT to the lowest copy in a chain, full deletion applies to intermediate copies
- ❖ lower copy = DP: partial deletion deletes NP, D remains → RP:
[_{CP} [_{DP} D NP] ... [_{DP} D ~~NP~~]]

(14) [_{DP} Aduane nó] na Kofi pé [_{DP} ~~aduane nó~~] anɔ́pá.
 food the FOC Kofi like 3SG.O morning
 ‘It’s the food that Kofi likes in the morning.’ (KM 2019)

- ❖ lower copy is NP/VP/PP: partial deletion deletes the entire XP, nothing remains for pronunciation → gap:
[_{CP} [_{NP} N (XP)] ... [_{NP} ~~N (XP)~~]]

(15) [_{NP} Nípa] na Kofi súró [_{NP} ~~nípa~~] paa.
 person FOC Kofi fear person really
 ‘It’s people that Kofi really fears.’

Consequence: Avoid Gap

- ❖ Usually: Full deletion = default, partial deletion = a position needs to be spelled out
 - ❖ Reasons:
 - ▶ special (non-structural) case (Pesetsky 1998)
 - ▶ particular phonological requirement (Landau 2006)
 - ▶ EPP (van Urk 2018)
- ⇒ Avoid Pronoun (Chomsky 1981, 1982; Montalbetti 1984)

Asante Twi:

- ❖ Partial deletion is the default
- ❖ What reason would there be to spell out the base position of objects?
Also: Gaps are allowed in this position.
- ❖ It is just that a gap is the special case, where a structurally poorer object, i.e. idiom, generic/kind, predicative nominal is extracted

Extension: Subject extraction

Subject extraction

- ❖ Nominal subjects are usually doubled by a RP (*o-/ɔ-* for animates; *e-/ɛ-* for inanimates).

- (16) a. Kofí na ɔ-pɛ sika.
 Kofi FOC 3SG.S-like money
 ‘It’s Kofi who likes money.’
- b. Hwáń na o-hú-u ɔbáá nó?
 who FOC 3SG.S-see-PST woman DEF
 ‘Who saw the woman?’
- c. ɔbáá nó na ɔ-fá-a fie nó akyí.
 woman DEF FOC 3SG.S-pass-PST house DEF behind
 ‘It’s the woman who passed behind the house.’
- (17) a. ɛboɔ nó na ɛ-bɔ-ɔ mɛ.
 stone DEF FOC 3.INAN.S-hit-PST 1SG.O
 ‘The stone hit me.’
- b. Déén na ɛ-dá pónó nó só?
 what FOC 3.INAN.S-lie table DEF on
 ‘What lies on the table?’

Subject extraction

- ❖ The noun-types identified above (idiom parts, generic/kind) are doubled by the inanimate marker *e-/ε-* despite being animate (*o-/ɔ-*).

(18) a. Ne-hó na ε-dáné-eε.

3SG.POSS-self FOC EXPL-turn-PST

‘It’s her who became pregnant. / It’s her self that turned.’

b. Ne-hó na ɔ-dáné-eε.

3SG.POSS-self FOC 3SG.S-turn-PST

‘#It’s her who became pregnant. / It’s her self that turned.’

(19) Báríma na e/*o-n-dí aduá.

man FOC EXPL/3SG.S-eat beans

‘It’s men that don’t eat beans’

Subject extraction

- ❖ In addition, non-specific indefinites also take the inanimate marker

(20) Q: Did your mother tell you that it's healthy to eat a lot of fruit?

- Daabi. Dɔketá na ε-ká kyéré-ε mé sε ε-yε.
no doctor FOC EXPL-say say-PST 1SG.O COMP 3.INAN.S-be
'No. A (non-specific) doctor told me that it is.'
- Daabi. Dɔketá na ɔ-ká kyéré-ε mé sε ε-yε.
no doctor FOC 3SG.S-say say-PST 1SG.O COMP 3.INAN.S-be
'No. The doctor told me that it is.'

- ❖ Subjects show a similar split as objects
- ❖ Difference:
objects: RP vs. gap alternation;
subjects: RP vs. {e/ε} alternation

Subject extraction

- ❖ Idea (in analogy to object extraction): these noun-types leave a gap which triggers insertion of an expletive.
- ❖ reason for expletive: phonological EPP? (position needs to be pronounced)
- ❖ Extracted VP-subjects also trigger presence of *e-/ε-*:

(21) [_{VP} Dán sí]-é na Kofi nim sε ε/*ɔ-yε den.
 house build-NMLZ FOC Kofi know COMP EXPL/3SG.S-be difficult
 ‘It is building a house that Kofi knows is difficult.’

Subject extraction

❖ *e-/ε-* is used in expletive contexts

- (22) a. *ε-yε mé sε Kofi a-waré.*
 EXPL-do/be 1SG.O COMP Kofi PFV-marry
 ‘It appears that Kofi is married.’
- b. *ε-n-yε m-máá nó na e-hú-u m-marimá nó.*
 EXPL-NEG-do/be PL-woman DEF FOC EXPL-see-PST PL-man DEF
 ‘It was no woman who saw the men.’
- c. *ε-wɔ sé obíáá túmí kyéré n-ádweén.*
 EXPL-be COMP everyone can show 3SG.POSS-mind
 ‘It ought to be the case that everybody is able to express their
 opinion.’ (Korsah 2016: 113)

Open questions

Islandhood

- ❖ recall: no 1:1 correspondence between gaps/RPs and island-insensitivity

(23) *Distribution of gaps and RPs*

summary:	NP _{KM}	NP _{novel}	VP/PP
true gap	no	yes	yes
island-sensitive	no	no	yes

- ❖ If it is not the dichotomy between gap and RP, what then causes island-sensitivity?
- ❖ So far, it seems as if the category of the lexical head of the (extended) projection ($[\pm N]$) of the extractee matters (XPs with nominal core are not island-sensitive, those with a non-nominal core are) – why should that be the case?
- ❖ We leave it to future research to resolve the island issue.

Optionality under local subject extraction

- ❖ Usually: *e-/ε-* for inanimate subjects, non-nominal subjects (*e-/ε-* = default); *o-/ɔ-* for animate Ns
- ❖ Optionality for animate N-subjects in local extraction

(24) Kofí na ɔ/ε-káń-n ḱrataá nó.
 Kofi FOC 3SG.S/EXPL-read-PST book DEF
 'It is Kofi who read the book.'

- ❖ No optionality in long-distance extraction

(25) Kofí na wo-nim sɛ ɔ/*ε-káń-n ḱrataá nó.
 Kofi FOC 2SG.S-know COMP 3SG.S/EXPL-read-PST book DEF
 'It is Kofi who you know read the book.'

- ❖ unclear why the less specific/default element can be used for animate N-antecedents only under local subject extraction

Non-specific indefinites

- ❖ Pattern with RP-leaving nominals in object position but with gap-leaving nominals in subject position

(26) Q: Did your mother tell you that it's healthy to eat a lot of fruit?

- a. Daabi. Dɔketá na ɛ-ká kyéré-ɛ mé sɛ ɛ-yɛ.
 no doctor FOC EXPL-say say-PST 1SG.O COMP 3.INAN.S-be
 'No. A (non-specific) doctor told me that it is.'
- b. Daabi. Dɔketá na ɔ-ká kyéré-ɛ mé sɛ ɛ-yɛ.
 no doctor FOC 3SG.S-say say-PST 1SG.O COMP 3.INAN.S-be
 'No. The doctor told me that it is.'

(27) Q: Did you consult a lawyer about the issue?

- A: Daabi. Dɔketá na mé-hú-u *(nó) nnera.
 no doctor FOC 1SG.S-see-PST 3SG.O yesterday
 'No. I consulted a (non-specific/specific) doctor yesterday.'

- ❖ Context not clear enough in forcing a non-specific reading?

Conclusion

Conclusions

(28) Updated table:

summary:	DP	NP	VP/PP
true gap	no	yes	yes
island-sensitive	no	no	yes

- ❖ \bar{A} -extraction of nominal elements may result in either a gap or a pronoun, both are island-insensitive
- ❖ The choice is dependent on the structural properties of the extracted nominal (DP vs. NP)
- ❖ A partial deletion account captures this split straightforwardly
- ❖ Consequence: There seems to be a preference for rsumptive pronouns over gaps when possible. This is in conflict with economy principles like Avoid Pronoun.

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